

REMARKS

These remarks and the accompanying amendments are responsive to the Office Action dated September 6, 2007 (hereinafter referred to as the "Office Action"), having a shortened statutory period for response that expires December 6, 2007. At the time of the last examination, Claims 1, 2, 4-6, 8, 18-20, 22, 23, 33-37, 47, 49 and 53-85 were pending, of which Claims 1, 4, 5, 6, 8, 18, 19, 23, 33, 35, 36, 37, 47, 49, 53, 54, 62, 69, 70, 78 and 85 are independent. The Office Action rejected only Claims 62 and 78, and objected to Claim(s) 63 and 79. The rejected claims are not specifically amended herein, though a few allowed claims have been amended for clarity to replace the term "interval" with "section".

The Office Action states that claims 62 and 78 are being unpatentable over United States patent number 6,272,167 issued to Ono (the patent hereinafter referred to as "Ono") in view of United States patent number 6,487,236 issued to Iwamatsu et al. (the patent hereinafter referred to as "Iwamatsu").

1) Re: claim 78

(a) Regarding the feature "weighting and averaging pilot signals using a plurality of weight sequences" of claim 78, the Office Action states that this feature is disclosed in column 4, lines 1-20 and 28-40 of Ono.

In connection with this, the Office Action states that "a simple averaging by RAKE combining of the pilot symbols in a slot to provide improvement in error deterioration".

According to this opinion, it seems that the Office Action assumes as follows. That is, in each finger 200 shown in Figure (the only figure), the weighting circuit 130 multiplies "weighting coefficient" outputted from the weighting coefficient estimation unit 120, by "reception symbol corresponding to physical channel", and outputs a signal. The signals

outputted from respective fingers are combined in the RAKE combiner unit 400. It seems that the Office Action assumes that this process corresponds to the above-mentioned feature of claim 78.

However, properly speaking, the feature of claim 78 is "weighting and averaging pilot signals using a plurality of weight sequences to obtain a plurality of channel estimation values".

According to the Office Action opinion described above, the result obtained by the weighting and averaging (i.e. the signal outputted from the RAKE combiner unit 400) in Ono is clearly NOT "a plurality of channel estimation values". The signal outputted from the RAKE combiner unit 400 is one obtained by compensating the reception signals of respective multi paths (channels) for the path characteristics, and by combining them. That is, the signal outputted from the RAKE combiner unit 400 is the final target object.

Further, in Ono, "reception symbol corresponding to physical channel" inputted to the weighting circuit 130 from the correlation unit 110 is NOT "pilot signal" (please see column 3, lines 65-67). In Ono, the pilot signal is inputted to the weighting coefficient estimation unit 120 from the correlation unit 110 (please see column 3, lines 59-63).

Thus, Ono does not disclose a feature of claim 78, i.e. "weighting and averaging pilot signals using a plurality of weight sequences to obtain a plurality of channel estimation values".

This feature is also not disclosed in Iwamatsu et al.

Thus, claim 78 is not unpatentable over Ono and Iwamatsu either singly or in combination.

(b) Regarding the feature "deriving a plurality of demodulated data sequences from a data sequence using said plurality of channel estimation values" of claim 78, the Office Action states that this feature is disclosed in column 20, lines 52-64 of Iwamatsu.

Further, regarding the feature "selecting one output data sequence by making judgment of reliability of said plurality of demodulated data" of claim 78, the Office Action states that this feature is disclosed in column 20, lines 65-67 and column 21, lines 1-14 of Iwamatsu.

According to these statements, it seems that the Office Action assumes that in Iwamatsu, the sequences W0-W63 or E0-E63 of Figures 22 and 23 (the sequences flowing from the FHT 16 to the MAX SEL 19) correspond to "a plurality of demodulated data", and the reliabilities R0-R63 of the sequences W0-W63 or E0-E63 correspond to "reliability of said plurality of demodulated data".

However, these sequences W0-W63 or E0-E63 are NOT ones obtained by using a plurality of channel estimation values. That is, these sequences W0-W63 or E0-E63 are obtained by calculating the correlation values for 64 known Walsh codes in the FHT 16 of Figure 22 (please see column 5, lines 28-35)

Thus, Iwamatsu does not disclose a feature of claim 78, i.e. "deriving a plurality of demodulated data sequences from a data sequence using said plurality of channel estimation values". This feature is also not disclosed in Ono.

Thus, also from this point of view, claim 78 is not unpatentable over Ono and Iwamatsu.

2) Re: claim 62

As explained above, claim 78 is not unpatentable over Ono and Iwamatsu. The same explanation can be applied to claim 62.

Therefore, the rejection of Claims 62 and 78 should be withdrawn.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Application No. 09/701705
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Respectfully submitted,

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